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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,318	10/14/2003	Xinggao Fang	5682A	5027

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EXAMINER

MATZEK, MATTHEW D

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/685,318

Applicant(s)

FANG ET AL.

Examiner

Matthew D. Matzek

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 12, 14-16, 18-23, 25-32 and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13, 17, 24, 33 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/20/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11, 13, 17, 24 and 33-34, drawn to a treated textile substrate, classified in class 442, subclass 59.
- II. Claims 12, 14-16, 18-23, 25-32 and 35, drawn to a composition for treating a textile substrate, classified in class 524, various subclasses.

The inventions are distinct, each from the other because of the following reasons:

1. Inventions II and I are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a stain resistant and water repellant coating and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.
2. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with John Vick Jr. on 4/28/2005 a provisional election was made with traverse to prosecute the invention of a treated textile substrate, claims 1-11, 13, 17, 24 and 33-34. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12, 14-16, 18-23, 25-32 and 35 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Claim Objections***

6. Claims 5 and 6 are objected to because of the following informalities: the use of the "Zinc Omadine". ZINC OMADINE is a brand name and as such should not appear in claims. The composition of ZINC OMADINE may change with time and would therefore change the limitation set forth in Applicant's claims. Generic terminology should be use in place of Trademarks. Appropriate correction is required.
7. Claims 13 and 17 are dependent from non-elected claims. The Examiner will examine said claims with the intended incorporated limitations. Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-8, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Bullock et al. (US Patent 6,251,210).
9. Bullock et al. disclose a treated textile fabric comprising at least about 5 weight percent of a fluorochemical (Abstract). The primary treatment may also contain one or more antimicrobial agents, fluoropolymers, and cross-linked resins (col. 4, lines 42-44, col. 12, lines 7-31). The fluorochemicals provide water repellance and stain resistance (col. 12, lines 9-14). The applied patent teaches that the preferred latex component of the primary fluorochemical treatment may comprise acrylate copolymers and terpolymers of methylacrylate (col. 11, lines 17-49).
10. Claims 3 and 4 are rejected as the applied patent teaches the use of blocked isocyanate (col. 1, lines 62-67).
11. Claims 5 and 6 are rejected as the applied patent discloses that the anti-microbial agent may be “any substance or combination of substances that kills or prevents the growth of a microorganism and includes antibiotics, antifungal, antiviral, and antialgal agents, which includes triclosan and ZINC OMADINE<sup>TM</sup> (col. 11, lines 50-59).
12. Preferred crosslinking resins and the associated crosslinkers of the applied patent are disclosed (col. 12, lines 25-41).

***Claim Rejections - 35 USC § 102***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 9, 24 and 33-34 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bullock et al.

14. The applied patent is silent as the hydrophobicity of the disclosed crosslinking components, however as the invention is directed for use as a stain and water repellant textile fabric it is reasonable to presume that the crosslinking agents taught by Bullock et al. are hydrophobic.

15. The applied patent is silent as to how it would perform according to the instantly disclosed test methods, however as the article of the prior art meets the chemical and compositional limitations instantly set forth it is reasonable to presume that the applied article possesses the instantly disclosed properties.

***Claim Rejections - 35 USC § 103***

16. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock et al. The applied patent discloses that the textile is to be coated on both sides with the fluorochemical composition, however it would have been obvious to one of ordinary skill in the art to have only coated one side of the textile. The skilled artisan would have been motivated by the desire to decrease production costs and time as well as improve the "hand" of the textile through the reduction of polymeric coating.

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17. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock et al. in view of Fitzgerald et al. The invention of Bullock et al. has been previously disclosed, but is silent as to the specific fluoropolymers to be used in the treated textile.

18. Fitzgerald et al. disclose an aqueous emulsion for imparting oil and water repellency to textiles comprising an aromatic blocked isocyanate and fluoropolymer (Abstract). The applied patent teaches the use of fluoropolymers that include perfluoroalkyl groups connected to polyurethane or (meth)acrylate groups (col. 1, lines 60-67). "(Meth)acrylate is to include methacrylate, acrylate, or a combination of these groups (col. 1, line 67 – col. 2, line 2).

19. It would have been obvious to one of ordinary skill in the art to have made the fluorochemical composition of Bullock et al. with the fluoropolymers of Fitzgerald et al. The skilled artisan would have been motivated by the desire to make a treated textile product with oil and water repellency properties.

20. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock et al. in view of Oharu et al. The invention of Bullock et al. has been previously disclosed, but is silent as to the incorporation of an antistatic component in the fluorochemical composition to be used in the treated textile.

21. Oharu et al. disclose a water and oil repellent composition capable of imparting highly long-lasting water and oil repellency to various materials (Abstract). The repellent composition comprises (meth)acrylate having a polyfluoroalkyl group and a blocked isocyanate group (Abstract and col. 7, lines 45-51). Additional additives such as an antistatic agent may be included in the repellent composition (col. 17, lines 28-35).

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22. It would have been obvious to one of ordinary skill in the art to have included the antistatic agent of Oharu et al. in the fluorochemical composition of Bullock et al. The skilled artisan would have been motivated by the desire impart the textile of Bullock et al. with dust repellant properties and the ability to dissipate built up static charge.

***Conclusion***

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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*Elizabeth M. Cole*  
ELIZABETH M. COLE  
PRIMARY EXAMINER